

## CORRECTED VERSION

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
6 January 2005 (06.01.2005)

PCT

(10) International Publication Number  
**WO 2005/001752 A2**

(51) International Patent Classification<sup>7</sup>:

**G06K 9/00**

(21) International Application Number:

PCT/US2004/019713

(22) International Filing Date: 21 June 2004 (21.06.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

60/480,008	21 June 2003 (21.06.2003)	US
60/519,792	13 November 2003 (13.11.2003)	US
60/523,068	18 November 2003 (18.11.2003)	US

(71) Applicant (for all designated States except US): **APRILIS, INC.** [US/US]; 5 Clock Tower Place, Suite 200, Maynard, MA 01754 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **FEDELE, Vincent** [US/US]; Post Office Box 061, Harvard, MA 01451 (US). **BERG, John, S.** [US/US]; 58 Jefferson Road, Franklin, MA 02038 (US). **BUTLER, Christopher, J.** [US/US]; Suite 9, 269 Broadway, Arlington, MA 02474 (US). **FARRAHER, Robert, David** [US/US]; 24 Main Street #2, Somerville, MA 02145 (US).

(74) Agents: **MEAGHER, Timothy, J.** et al.; Hamilton, Brook, Smith & Reynolds, P.C., 530 Virginia Road, P.O. Box 9133, Concord, MA 01742-9133 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

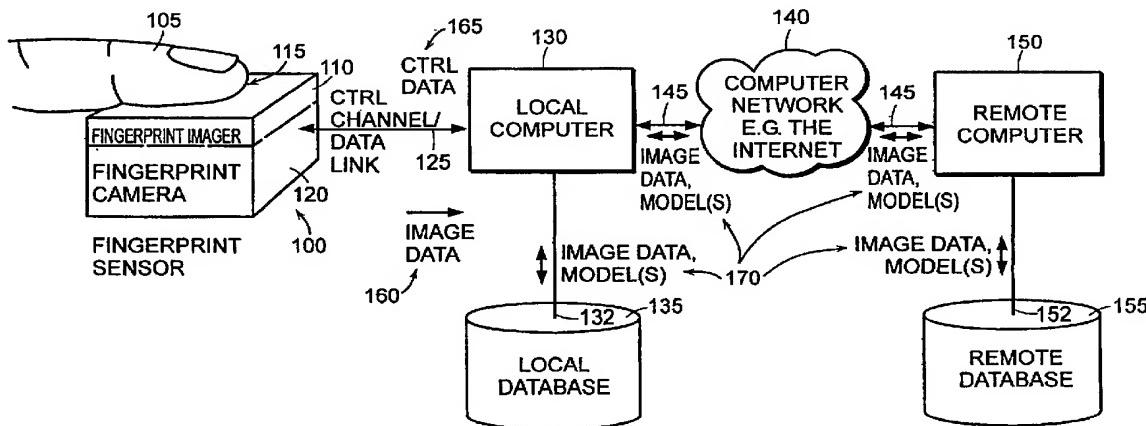
— without international search report and to be republished upon receipt of that report

(48) Date of publication of this corrected version:

2 June 2005

[Continued on next page]

(54) Title: METHOD AND APPARATUS FOR PROCESSING BIOMETRIC IMAGES



(57) **Abstract:** A method and apparatus for applying gradient edge detection to detect features in a biometric, such as a fingerprint, based on data representing an image of at least a portion of the biometric. The image is modeled as a function of the features. Data representing an image of the biometric is acquired, and features of the biometric are modeled for at least two resolutions. The method and apparatus improves analysis of both high-resolution images of biometrics of friction ridge containing skin that include resolved pores and lower resolution images of biometrics without resolved pores.

WO 2005/001752 A2



**(15) Information about Correction:**

see PCT Gazette No. 22/2005 of 2 June 2005, Section II

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*